

LEPADOMORPH CIRRIPEDS FROM THE
BRAZILIAN COAST
II—FAMILY SCALPELLIDAE

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ABSTRACT

This study presents the lepadomorph cirripeds of the family Scalpellidae from the Brazilian coast. Seven species are recorded: *Lithotrya dorsalis* (Ellis and Solander, 1786); *Litoscalpellum henriquecostai* (Weber, 1960); *L. regina* (Pilsbry, 1907); *Arcoscalpellum portoricanum portoricanum* (Pilsbry, 1907); *A. triangulare* (Hoek, 1883); one new species of *Arcoscalpellum* Hoek, 1907; and *Ornatoscalpellum gibberum* (Aurivillius, 1892), the last as being of probable occurrence. Except for *L. henriquecostai*, all recorded species are new occurrences. *Lithotrya atlantica* Borradaile, 1916 is considered a junior synonym of *L. dorsalis*.

This paper completes a set containing the available information on lepadomorph cirripeds from the Brazilian coast, together with a previous paper (Young, 1991). With one exception, all the species herein studied are recorded only from the continental shelf. The exception, *Lithotrya dorsalis* (Ellis and Solander, 1786) occurs in the littoral zone, burrowing in calcareous substrates.

The abbreviations cited in this paper are: FURG, Fundação Universidade do Rio Grande; MZB, Museu Zoobotânico do Rio Grande do Sul; MZUSP, Museu de Zoologia da Universidade de São Paulo; NOAS, Almirante Saldanha Oceanographic Ship; UFPB, Universidade Federal da Paraíba; UFRG, Universidade Federal do Rio de Janeiro; UC, unknown collector.

Subfamily Lithotryinae Gruvel, 1905
Genus *Lithotrya* Sowerby, 1822

Lithotrya dorsalis (Ellis and Solander, 1786)
Figure 1a-c

Lepas dorsalis Ellis and Solander, 1786: 197, pl. 15, fig. 5.

Lithotrya dorsalis; Sowerby, 1822: without pagination; Darwin, 1851: 351, pl. 8, fig. 1, 1a-c; Hoek, 1883: 29; Weltner, 1897: 251; Pilsbry, 1907: 6; 1927: 27; 1953: 23, pl. 1, fig. 8; Nilsson-Cantell, 1933: 504; Southward, 1975: 3; Weisbord, 1977: 282, pl. 4, figs. 1-3; Zevina, 1981: 46, fig. 23.

Lithotrya atlantica Borradaile, 1916: 131, figs. 4, 5a-b; Young, 1986: 108.

Examined Material.—BRAZIL. Paraíba: João Pessoa, UFPB 168-169, 1430. Alagoas: Marechal Deodoro, UFPB 3327.

Description and Diagnosis.—Weisbord, 1977: 282.

Geographic Distribution.—Western Atlantic. USA—Florida—, Honduras, Panama, Venezuela, Bahamas, Cuba, Jamaica, Puerto Rico, Barbados, Netherlands Antilles (Weisbord, 1977) and Brazil—Paraíba, Alagoas and Trindade Island (Borradaile, 1916; Young, 1986; both as *L. atlantica*).

Habitat.—Boring into calcareous substrates of the intertidal and upper littoral zone. Specimens were found perforating the dead surface of colonies of *Siderastrea stellata* Verrill and *Mussismilia hispida* (Verrill) corals at the back reefs at João Pessoa (Young, 1986).

Remarks.—This collection consisted of young (Paraíba and Alagoas) and old

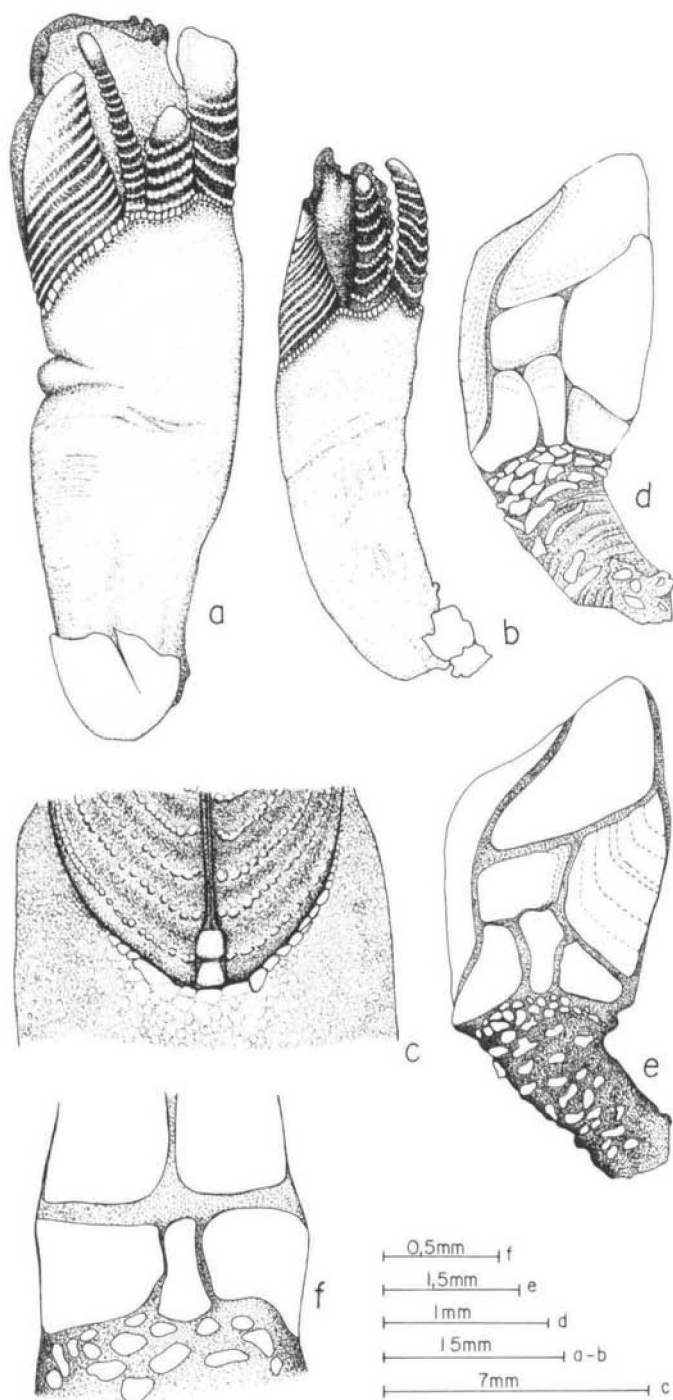


Figure 1. *Lithotrya dorsalis* (Ellis and Solander). UFPB 169: a—right lateral view of an adult specimen; b—right lateral view of a young specimen. *Ornatoscalpellum gibberum* (Aurivillius). MZUSP 7631: c—detail of the rostral region of the same specimen. UFPB 3327: d—left lateral view. MZUSP 7632: e—left lateral view; f—detail of the rostral region of the same specimen. Cuticle not represented in d-f.

(Alagoas) specimens. The distinction of ages is done by the high degree of abrasion of the capitular plates on old specimens, chiefly the paired plates (Fig. 1a-b).

The young specimens examined were similar to those figured by Borradaile (1916) for *L. atlantica*. Notwithstanding its short original description, I have ascertained that *L. atlantica* is a junior synonym of *L. dorsalis*. The characters observed by Borradaile involving the distal row of scales from the peduncle, the mandible and the second maxilla do not justify *L. atlantica* as a valid species.

Subfamily Scalpellinae Pilsbry, 1907
Genus *Ornatoscalpellum* Zevina, 1978

Ornatoscalpellum gibberum (Aurivillius, 1892)
Figure 1d-f

Newman and Ross, 1971: 115.

Examined Material.—ARGENTINA. Off Mar del Plata, MZB 10, MZUSP 7631-7632.

Description and Diagnosis.—Nilsson-Cantell, 1921: 178; 1930: 228; Newman and Ross, 1971: 115.

Geographic Distribution.—Southern South America. Uruguay, Argentina, Falkland Islands and Chile (Nilsson-Cantell, 1957; Newman and Ross, 1971).

Habitat.—Found on shells and rocks from 50 to 1,800 m.

Remarks.—The specimens studied (>20) were very young, with less than 4.0mm of capitulum height (Fig. 1d-f). *Ornatoscalpellum gibberum* is very common off Mar del Plata and probably occurs along the southern Brazilian coast.

Subfamily Meroscalpellinae Zevina, 1978
Genus *Litoscalpellum* Newman and Ross, 1971

Litoscalpellum henriquecostai (Weber, 1960)
Figures 2, 3

Scalpellum henriquecostai Weber, 1960: 1, fig. 1-11.

Litoscalpellum henriquecostai; Zevina, 1978: 1344; 1981: 129, fig. 90.

Examined Material.—BRAZIL. Three paratypes from type-locality (Ilha dos Alcatrazes, São Paulo, H. Rodrigues col. X/59, 15 m), unnumbered, from the collection of Centro de Estudos Zoológicos (nowadays Departamento de Biologia Marinha—UFRJ) and transferred to MZUSP (no 7633). One specimen was dissected.

Description.—Capitulum (Fig. 2a-c) slightly compressed; breadth about $\frac{3}{4}$ of width, with carinal and occludent margins with similar curvatures; cuticle very thick and covered with short filiform expansions (velvety according to Pilsbry, 1907); plates inconspicuous. Length of peduncle equal to height of capitulum, with rows of large scales and covered with cuticle similar to that of capitulum.

Scutum (Fig. 2d-e) twice as high as wide; umbo apical; occludent region wider than tergal, strongly convex, with occludent and basal margins convex; tergal region slightly concave, tergal margin straight and lateral margin with obtuse angle at middle and with two halves straight; apex curved towards tergum; with numerous and thin growth lines and radial ribs; internally with scar of adductor muscle large and deep. Tergum (Fig. 2f) developed, its greatest length larger than scutum and two times its own width; apical umbo; with an apico-basal crest separating plate in two regions; carinal region with half of area of occludent; both regions with numerous and thin growth lines and radial ribs; margins: occludent

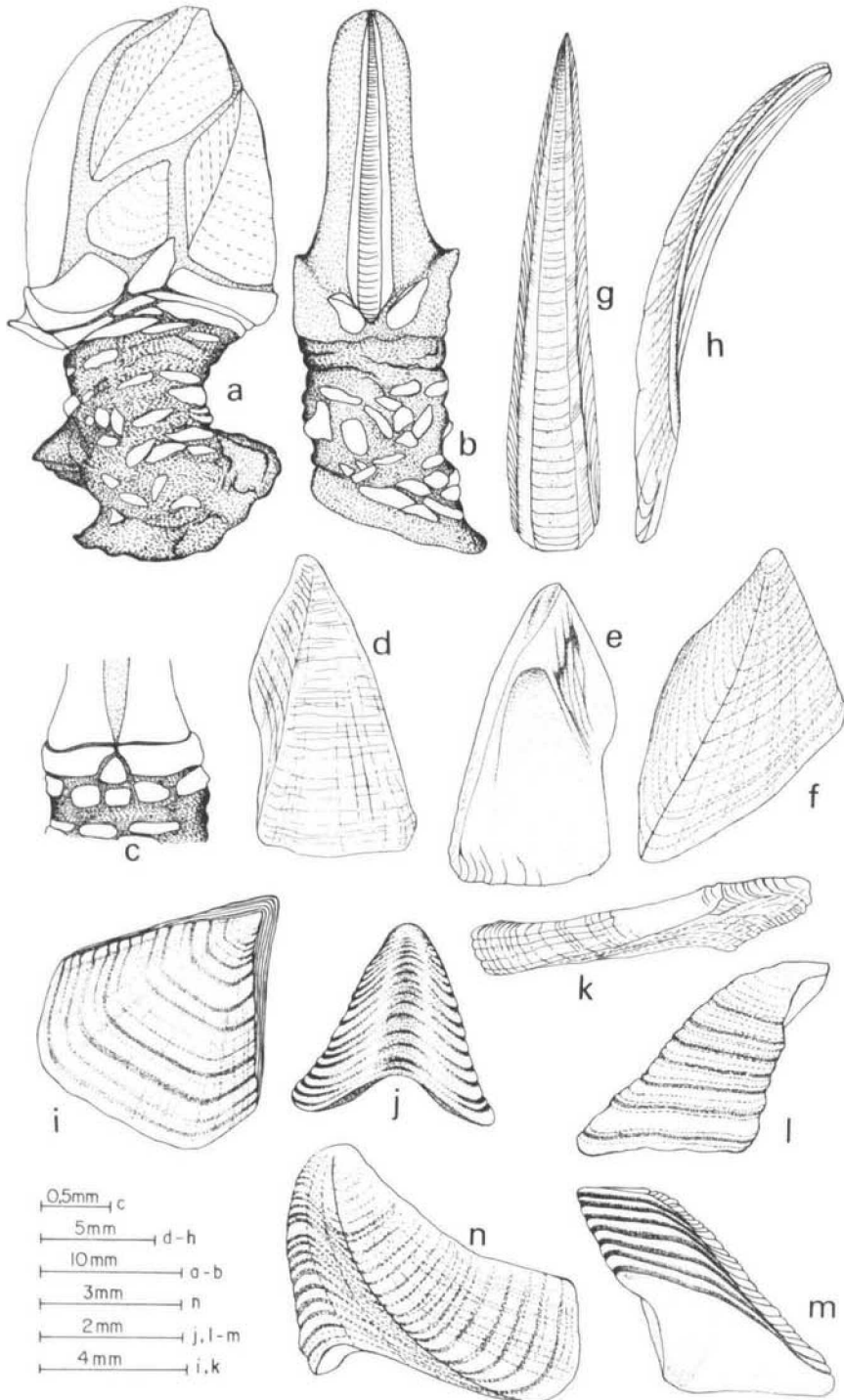


Figure 2. *Litoscalpellum henriqu Coastai* (Weber). Paratype, MZUSP 7633: a—left lateral view; b—carinal view of the same specimen; c—detail of the rostral region of the same specimen; d—e—scutum, respectively external and internal view; f—tergum, external view; g—h—carina, respectively dorsal and lateral view; i—upper-latus, external view; j—rostrum, extern-basal view; k—rostral-latus, external view; l—m—inframedian-latus, external and internal view, respectively; n—carinal-latus, external view. Cuticle not represented.

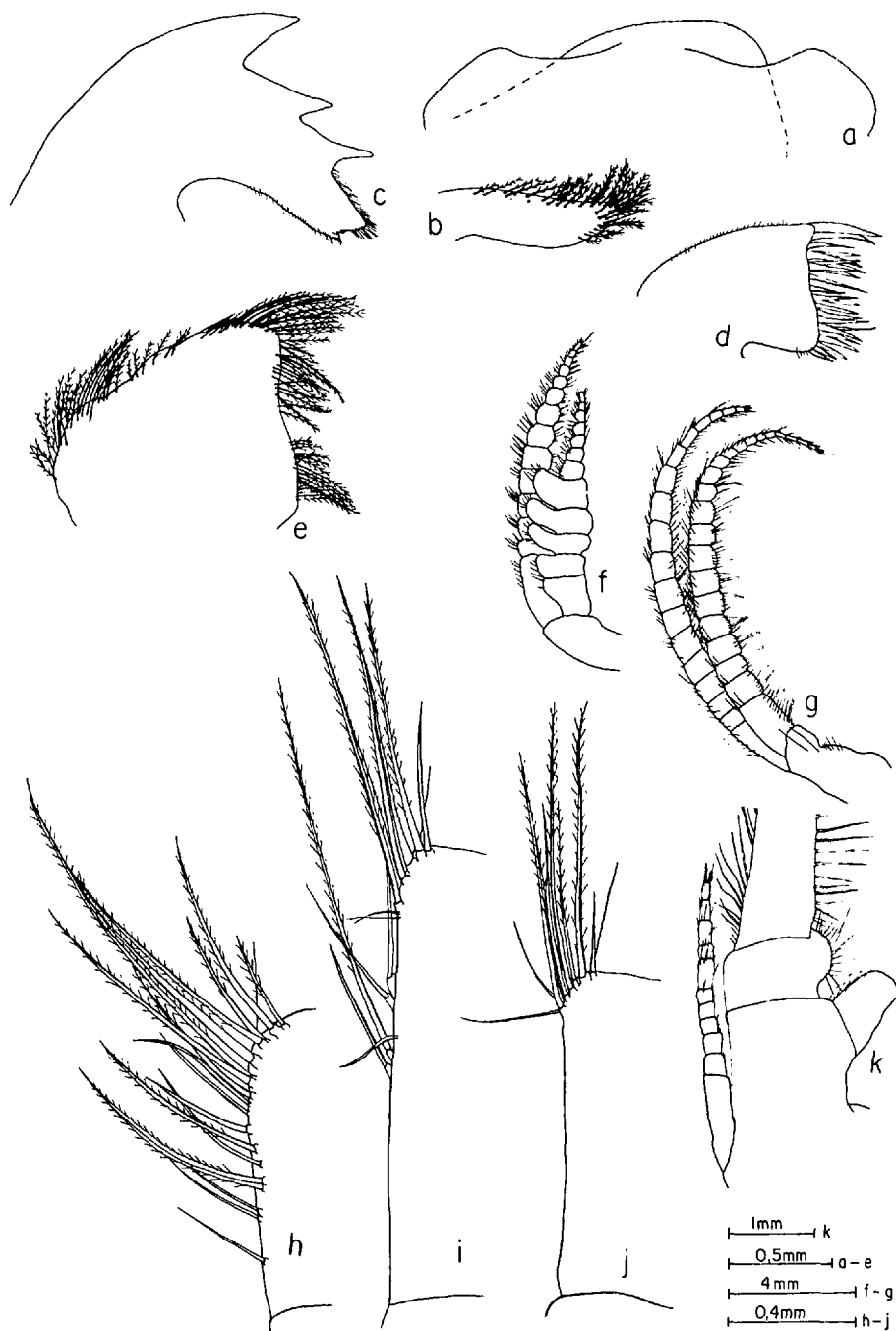


Figure 3. *Litoscalpellum henriquecostai* (Weber). Paratype, MZUSP 7633: a—labrum; b—palp; c—mandible; d—first maxilla; e—second maxilla; f—cirrus I; g—cirrus II; h–j—posterior margins of proximal, median and distal articles, respectively, of posterior ramus of cirrus II; k—caudal appendage, base of cirrus IV and penis. Distribution of setae is schematic and details of complex setae are not presented in f, g and k.

straight; scutal slightly convex; and carinal separated in two segments, superior slightly concave and inferior slightly convex, first about $\frac{3}{5}$ length of second. Carina (Fig. 2g-h) uniformly curved, with apical umbo; slightly enlarging from apex to base; roof with lateral high broad ridge at each side and concave in middle; borders large, with one ridge present from apex to near base; internally concave; base straight, with cutted angles; growth lines numerous and thin. Upper-latus (Fig. 2i) pentagonal and symmetrical; tergal and scutal margins straight and with same length; basal margin separated in three straight segments; carinal segment symmetric to inframedian segment; apex highest, thickened, with apical umbo; numerous and thin growth lines, rare and very thin radial ribs. Rostrum (Fig. 2j) reduced, only with apical region conspicuous under cuticle; triangular shaped, with a concave central region and two convex lateral regions; apical umbo; apex curved to its top. Rostral-latus (Fig. 2k) low, height about $\frac{1}{10}$ of its length; scutal and basal margins parallel; numerous and thin growth lines and radial ribs. Inframedian-latus (Fig. 2l-m) triangular, higher than wide; apical umbo; apex projected and thickened, forming an internal crest, curved to rostral-latus plate; numerous and thin growth lines; radial ribs absent. Carinal-latus (Fig. 2n) with apex projected backwards and outside of carina; the two plates approximate below basal margin of carina; strong apico-basal crest separating plates in two regions; carinal region, with upper margin straight and carinal margin concave; basal region, with two weak central grooves, basal margin convex and lateral margin concave.

Labrum (Fig. 3a) very bullated, with superior margin smooth. Palp (Fig. 3b) small and narrow, with pinnate setae at superior margin and at distal extremity. Mandible (Fig. 3c) with three sharp teeth; inferior angle rounded and spinulose; setae very short at inferior margin. First maxilla (Fig. 3d) with cutting border slightly sinuous, presenting two large spinules at superior angle and many median spinules downwards. Second maxilla (Fig. 3e) somewhat triangular, with a slight concavity at median region of anterior margin; pinnate setae present at all margins.

Cirrus I (Fig. 3f) with unequal rami; largest not much larger than smaller; smallest ramus with basal articles very protuberant; both rami with many simple and pinnate setae; base with rare pinnate setae at distal angle of anterior margin and at posterior margin. Cirrus II (Fig. 3g-j) with rami subequal; each article with five pairs of large and simple setae at its anterior margin; proximal articles with countless pinnate setae at posterior margin and distal articles with fewer setae restricted to their superior angles. Base with pinnate setae at anterior margin. Cirrus III with equal rami and its structure equal to cirrus II. Cirri IV to VI equal to cirrus III, except at posterior margins structures, which present setae only at postero-distal angle of articles. Setulation at lateral region and at distal margin of rami articles of cirri II-VI decreases from basal to distal articles and also from cirrus II to VI. Caudal appendage (Fig. 3k) large, reaching half length of first article of rami; with 11 articles, setulated at their distal margins. Penis atrophied, reduced to a small projection.

Geographic Distribution.—Southwestern Atlantic. Brazil—São Paulo and Rio Grande do Sul.

Habitat.—Found fixed on Condriichthyes egg-cases at 15 m.

Remarks.—*Litoscalpellum henriquecostai* is very similar to the species of the *Litoscalpellum velutinum* group, especially *L. giganteum* (Gruvel, 1902) and *L. regina* (Pilsbry, 1907). It is distinguished from *L. giganteum* because the latter presents the following characteristics: one wide chitinous suture separating the

plates; dorsally rounded carina; carinal-latus umbo not projected; rostrum reduced to a small granule or absent; and from *L. regina*: carina dorsally flattened, without lateral elevations, with triangular base and V-shaped growth lines. Furthermore, *L. henriquecostai* is a shallow water species, while the other two are deep water species—832 to 1822–1836 and 91–274 to 877 m, respectively.

Weber (1960) stated that *L. henriquecostai* was very similar to *Litoscalpellum microcerus* (MacDonald, 1929) (= *Anguloscalpellum microcerus*) when she described it. Nevertheless, the complete calcification of the plates, which are in contact, clearly distinguishes this species from *L. henriquecostai*.

Litoscalpellum regina (Pilsbry, 1907)

Figure 4

Weisbord, 1977: 269; Zevina, 1981: 136.

Examined Material.—BRAZIL. Rio Grande do Sul: Off Arroio Chuí, 500 m, MZUSP 7557, FURG unumb. URUGUAY. Off Rio de la Plata, 300 m, MZUSP 7634.

Description and Diagnosis.—Pilsbry, 1907: 25.

Geographic Distribution.—Western Atlantic. USA—Florida and Mississippi—Colombia, Brazil—Pernambuco (Calman, 1918) and Rio Grande do Sul—and Uruguay.

Habitat.—Found on rocks from 91–274 to 877 m (Weisbord, 1977).

Remarks.—The examined specimens agree with the original description (Pilsbry, 1907), except for the presence of an inframedian-latus umbo slightly more projected.

The carinal-latus plate suffers a significative modification in shape during growth. In young specimens (<3.0 cm) the umbo is not projected (Fig. 4a–c). Larger specimens, with height greater than 6.0 cm (Fig. 4d–e), have umbo of cardinal-latus very projected. The specimens from the sample of Chuí, were very aggregated. The larger specimens had a peduncle two times the height of the capitulum, therefore being longer than those observed by Pilsbry (1907). The occurrence of this species at Uruguay enlarges its meridonal distribution. The present disjunct distribution probably does not reflect the real distribution of this species. *L. regina*, which occurs at greater depths, may have its distribution modified by new collections at the bathyal region off the Brazilian coast.

Subfamily Arcoscalpellinae Zevina, 1978

Genus *Arcoscalpellum* Hoek, 1907

Arcoscalpellum boubalocerus new species

Figures 5–7

Examined Material.—HOLOTYPE. Hermaphrodite with capitulum 14.3 mm high and 9.4 mm wide and peduncle 16.3 mm high; capitulum and peduncle in alcohol 70%, MZUSP 7627; mouth appendages on lamina, MZUSP 7628a/b; thoracic appendages on lamina, MZUSP 7629a/b; URUGUAY, off Rio de la Plata, 37°41.5'S, 56°24.5'W, Almirante Saldanha Oceanographic Ship col. 12/IV/78, 50 m. PARATYPES. 36 specimens from the type-locality, MZUSP 7637, UFRJ 1411 and retained with the author. Other localities: BRAZIL. Santa Catarina. 28°39'S, 48°46.5'W, NOAS col 25/IV/78, 43 m, MZUSP 8124, UFRJ 1446. Rio Grande do Sul. 31°42'S, 51°03'W, UC 11/XII/84, 40 m, MZUSP 8125; 33°30'S, 52°20'W, UC 16/II/79, 13 m, MZUSP 8126. URUGUAY. 34°56.6'S, 53°43'W, NOAS col 1/V/78, 40 m, UFRJ 1445; 35°32'S, 54°6.5'W, NOAS col 28/IV/78, 50 m, UFRJ 1435; 36°23.8'S, 54°56'W, NOAS col 17/IV/78, 50 m, UFRJ 1412, MZUSP 7638; 36°34'S, 56°19'W, NOAS col 16/IV/78, 20 m, UFRJ 1428; 37°3.8'S, 55°36.5'W, NOAS col 16/IV/78, 50 m, UFRJ 1387; 37°15.7'S, 56°03'W, NOAS col 12/IV/78, 49 m, MZUSP 8123, UFRJ 1471.

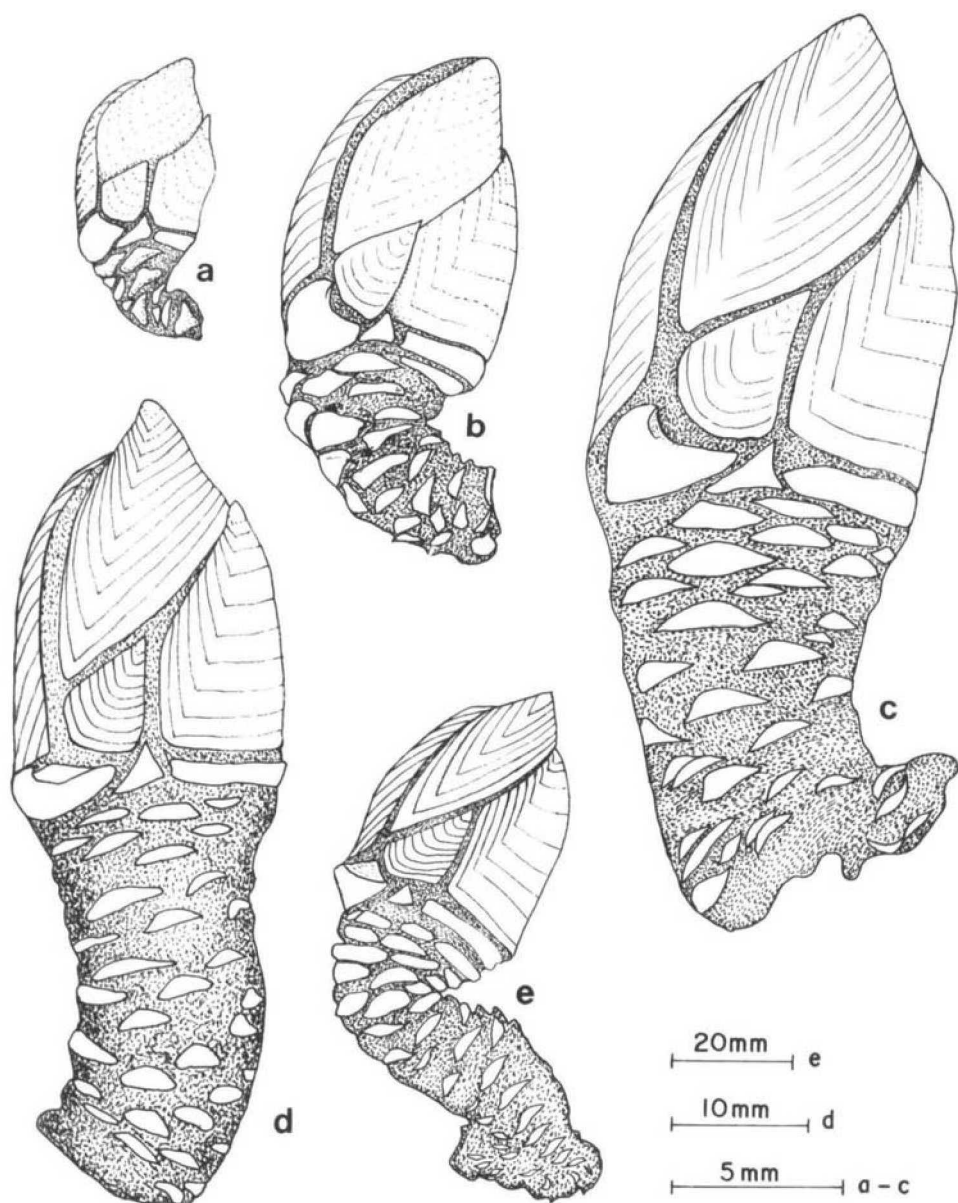


Figure 4. *Litoscalpellum regina* (Pilsbry). MZUSP 7557: a-e—lateral view of five stages of development. Cuticle not represented.

Diagnosis.—Capitulum compressed and tall; occludent margin convex at scutal region and straight at tergal region; recovered by densely setulated cuticle. Carina with a flat roof; base straight, with cutted angles. Upper-latus pentagonal and asymmetrical; scutal margin larger than tergal. Rostral-latus low, scutal and basal margins parallel. Inframedian-latus triangular, usually as wide as tall; apex curved to occludent margin. Carinal-latus with $\frac{2}{3}$ of it area projected; apex directed backwards in larger specimens with a conspicuous curvature. Labrum with multidenticulated scales at border. Mandible with three sharp teeth; inferior angle

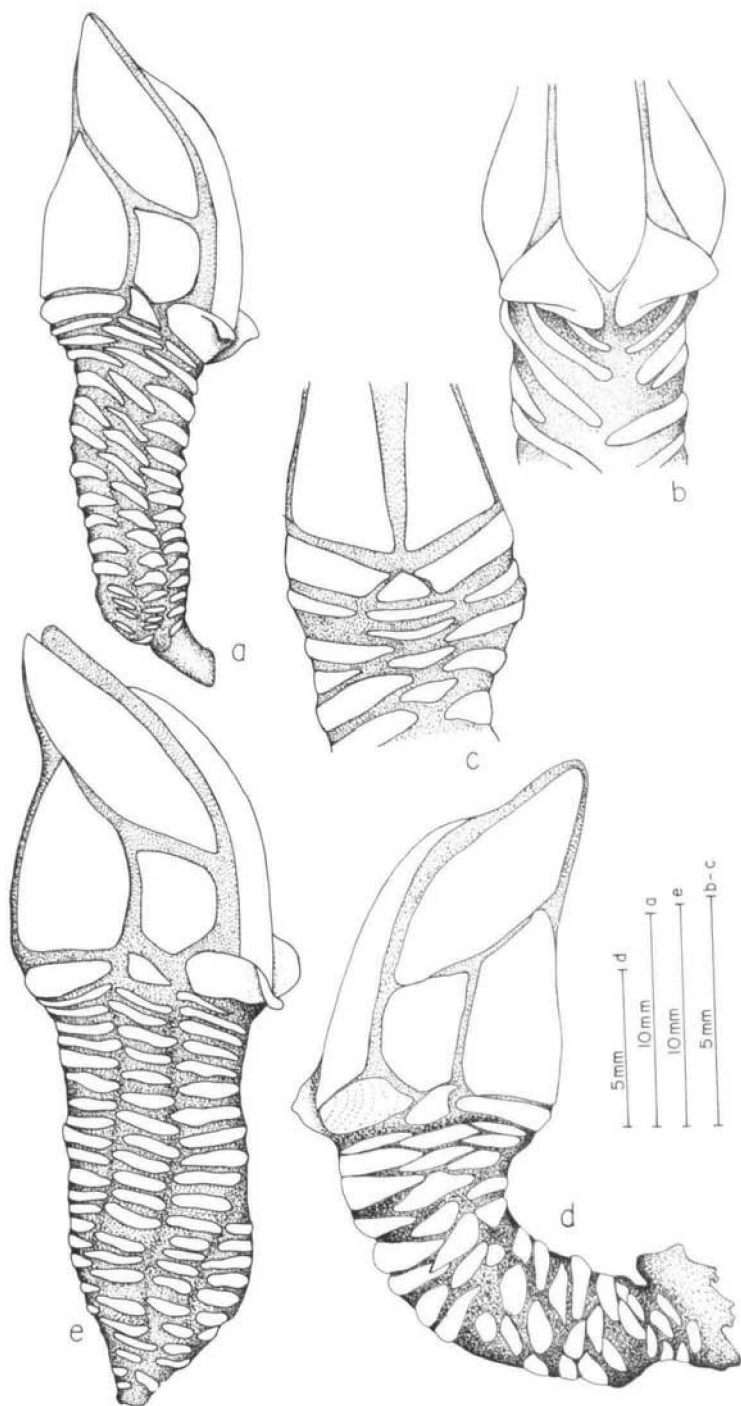


Figure 5. *Arcoscalpellum boubalocerus* sp. n. Holotype, MZUSP 7627: a—right lateral view; b—detail of the carinal region; c—detail of the rostral region. Paratypes, MZUSP 7637: d—left lateral view; e—right lateral view of other specimen. Cuticle not represented.

rounded and denticulated. First maxilla with one or two large spines at superior angle and usually one large central spine, besides many median and short spines on its cutting border. Cirrus II–VI with four to six pairs of large setae at anterior margin; a tuft of simple setae at postero-distal angle and short setae at anterior region of each article. Caudal appendage shorter than base, with four to seven articles, setulated at their distal margins.

Description. — Capitulum (Fig. 5) compressed; breadth about $\frac{1}{3}$ of its width, latter being $\frac{2}{3}$ of height; carinal margin convex, occludent margin convex at scutal region and straight at tergal region, curving only at apex; recovered by thin cuticle densely setulated. Peduncle one to two times larger than capitulum height, covered by rows of wide scales, with cuticle similar to that of capitulum.

Scutum (Fig. 6a–b) with height ($1\frac{1}{2}$ times its width, apical umbo; occludent region wider than tergal, convex, occludent margin slightly convex and basal margin straight; tergal region flat, tergal and lateral margins straight; apex sharp not recurved; with numerous and thin growth lines and radial ribs; internally, with a central and deep scar of adductor muscle. Tergum (Fig. 6c) developed, greater than scutum, with length about three times its larger width; apical umbo; one apico-basal crest, which separate tergum in two regions; carinal region with half area of occludent; numerous and thin growth lines and radial ribs; occludent margin straight; scutal margin slightly convex and carinal margin also convex but straight near its apex. Carina (Fig. 6d–e) with a pronounced curvature at its apical region, which do not form angles; apical umbo; apex very thin when compared to base; flat roof, tapering to its apex; internally concave; base straight, with cutted angles; numerous and thin, V-shaped growth lines. Upper-latus (Fig. 6f) pentagonal and asymmetrical; scutal margin larger than tergal, slightly concave; tergal margin straight; basal margin divided in three straight segments, carinal segment larger than carinal-latus, which is larger than inframedian-latus segment; apex weakly thickened, with apical umbo; numerous and thin growth lines; rare radial ribs, usually spaced near carino-tergal angle. Rostrum (Fig. 6g) small, with symmetric folds from apex to basal margin, separating it in three areas: a triangular central area and two angulated lateral areas. Rostral-latus (Fig. 6h) low, height about $\frac{1}{4}$ of its width; scutal and basal margins parallel; numerous and thin growth lines. Inframedian-latus (Fig. 6i) triangular, usually as wide as high; apical umbo; usually with apex bent to occludent margin; numerous and thin growth lines. Carinal-latus (Figs. 5a–b, 6j) with $\frac{2}{3}$ of its area projected; apex directed backwards with a pronounced curvature in large specimens; umbo apical; plates become closer below margin of carina.

Labrum (Fig. 7a–b) bullated, without teeth, with margin presenting multidenticated scales. Palp (Fig. 7c) small, narrow, with pinnate setae at its superior margin and at its distal extremity. Mandible (Fig. 7d) with three sharp teeth; inferior angle rounded and denticulated; inferior margin with very short setae. First maxilla (Fig. 7e) with cutting border concave at its superior half and from straight to convex at its inferior half; with one or two large spines at superior angle followed by about 30 median to short spines, usually with one large spine, in middle of them. Second maxilla (Fig. 7f) somewhat triangular, with a concavity at middle of anterior margin; pinnate setae present at margins and at lateral surfaces.

Cirrus I (Fig. 7g) with unequal rami; larger slightly longer than smaller, latter with very protuberant basal articles; both rami much setulated, with slightly pinnate setae; base with pinnate setae at its anterior margin and rare at its posterior margin.

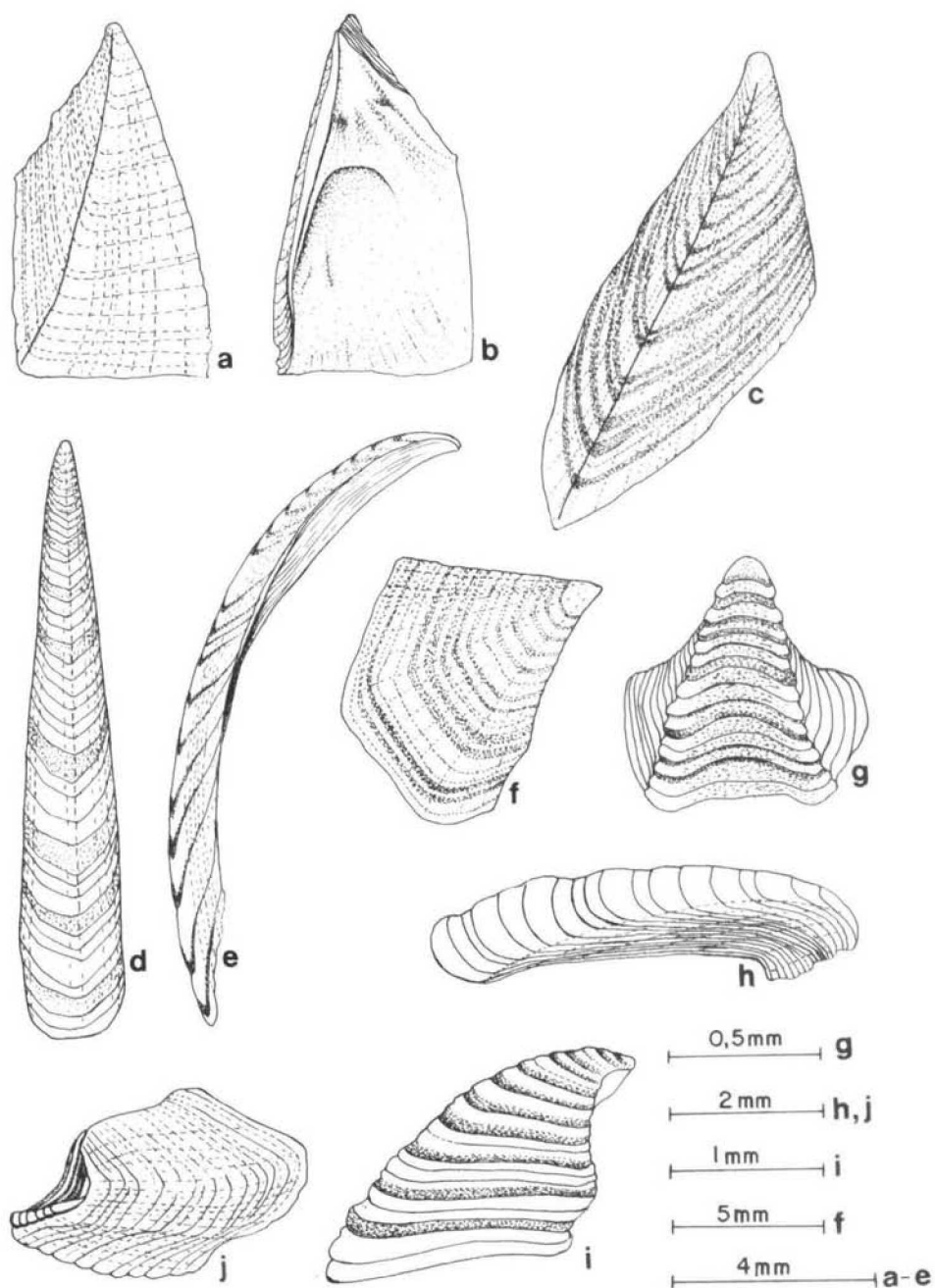


Figure 6. *Arcoscalpellum boubalocerus* sp. n. MZUSP 8125: a-b—scutum, external and internal view, respectively; c—tergum, external view; d-e—carina, dorsal and lateral view, respectively; f—upper-latus, external view; g—rostrum, external-basal view; h—rostral-latus, external view; i—inframedian-latus, external view; j—carinal-latus, external view. Cuticle not represented.



Figure 7. *Arcoscalpellum boubalocerus* sp. n. Holotype, MZUSP 7628; a—labrum; b—detail of the labrum; c—palp; d—mandible; e—first maxilla; f—second maxilla; g—cirrus I; h—cirrus II; i—median article of cirrus III; j—median article of cirrus VI; k—caudal appendage and base of cirrus IV. Distribution of setae is schematic and details of complex setae are not represented in g, h and k.

Cirrus II–VI (Fig. 7h–j) with equal rami; each article with four to six pairs of large slightly pinnate setae at its anterior margin, usually numerous simple and short setae at posterior region and one tuft of simple setae at postero-distal angle; base with anterior margin protuberant presenting simple and pinnate setae. Caudal appendage (Fig. 7k) shorter than base, with four to seven articles, setulated at their distal margins. Penis small and annulated, short, covered by simple and short setae, except at basal region which is naked.

The studied specimens were small in length, their capitulum having less than 20 mm high.

Coloration.—Plates are white or reddish, covered by an yellow-brownish cuticle.

Etymology.—Specific name referring to the carinal-latus shape remembering a buffalo horn (from Greek *Boubalous*, buffalo; *Keros*, horn).

Geographic Distribution.—Western South Atlantic: Brazil—Santa Catarina and Rio Grande do Sul—and Uruguay.

Habitat.—Fixed on Polychaeta tubes (e.g., *Phylochaetopterus* sp) at depths between 13 and 50 m.

Remarks.—*Arcoscalpellum boubalocerus* new species present the carinal-latus plate as high as wide, with a recurved apex. These characteristics place this species in the *Scalpellum portoricanum* group (= *Arcoscalpellum portoricanum*) of Pilsbry (1907). In this group of small species, the new species is very similar to *A. portoricanum portoricanum* (Pilsbry, 1907) and to its subspecies *A. portoricanum intonsum* (Pilsbry, 1907) by the shape of the inframedian-latus and carinal-latus plates. The new species is distinguished from *A. p. portoricanum* by the latter presenting the following characteristics: spately setulated cuticle; occludent margin nearly straight; basal margin of the carina convex; upper-latus with scutal and tergal margins subequal, its basal margin with carinal segment equal or shorter. It is distinguished from *A. p. intonsum* by the latter presenting inframedian-latus large and narrow; carinal-latus umbo less projected; and basal margin of carina and upper-latus shape equal to *A. p. portoricanum*.

All the samples from Santa Catarina had only specimens with reddish plates, while specimens from others samples have white. Except for the coloration, I cannot find any other differential characters.

Arcoscalpellum portoricanum portoricanum (Pilsbry, 1907)

Figure 8a–b

Weisbord, 1977: 259.

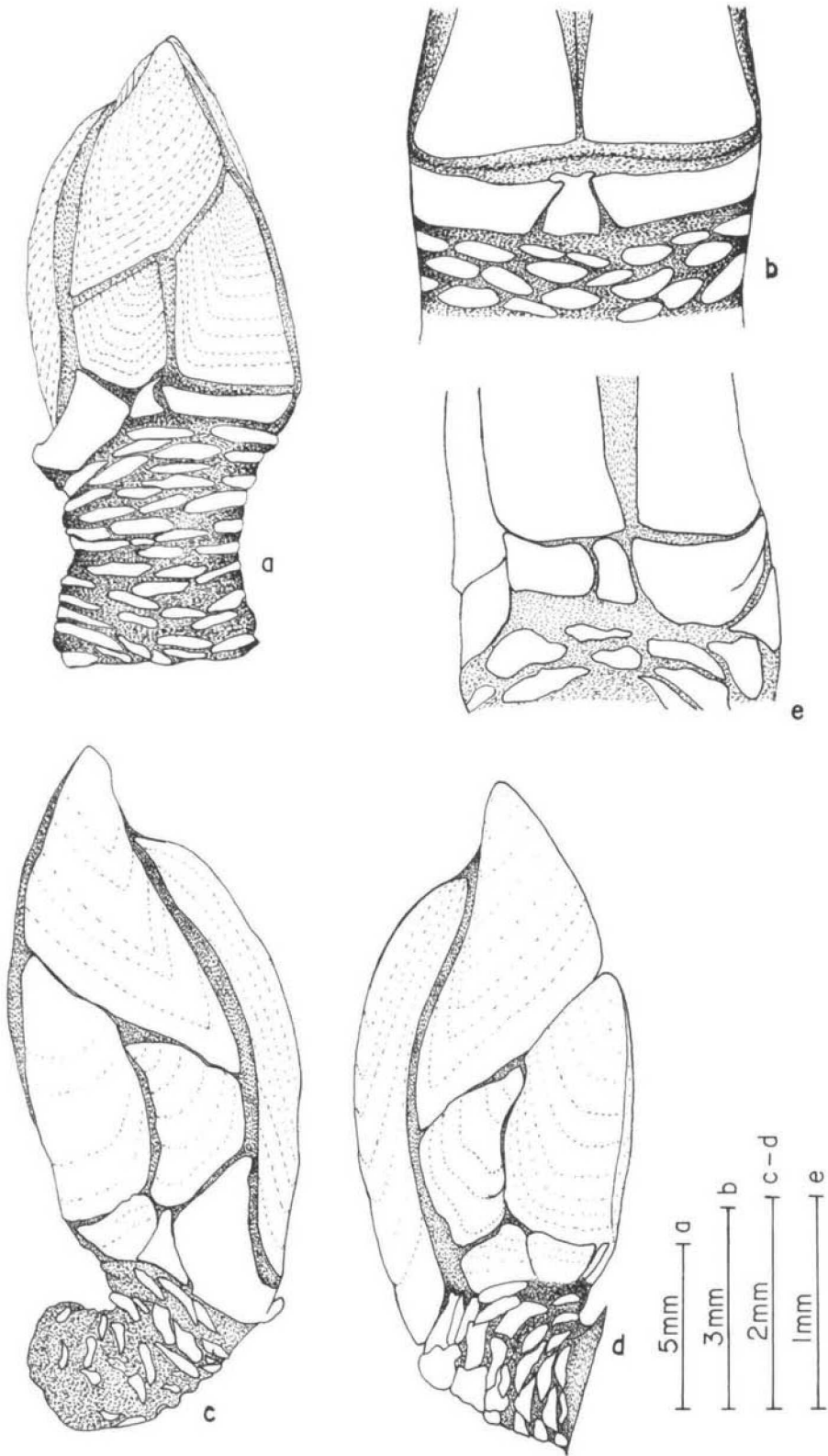
Examined Material.—BRAZIL. Rio Grande do Sul: Off Mostardas, 130 m, MZUSP 7635.

Description and Diagnosis.—Pilsbry, 1907: 35; Calman, 1918: 121.

Geographic Distribution.—Western Atlantic: Florida, Puerto Rico, Panama and Brazil—Rio Grande do Sul.

Habitat.—Fixed on shells between 46–139 and 307–388 m.

Figure 8. *Arcoscalpellum portoricanum portoricanum* (Pilsbry). MZUSP 7635: a—left lateral view; b—detail of the rostral region of the same specimen. *Arcoscalpellum triangulare* (Hoek). MZUSP 8149: c—right lateral view; d—left lateral view of the same specimen; e—detail of the rostral region of the same specimen. Cuticle not represented.



Remarks.—The observed specimens (Fig. 8a–b) only differ from the original description by the presence of a velvet cuticle instead of the sparsely pilose described for the types (Pilsbry, 1907). This difference was also noted by Calman (1918) on material off Puerto Rico.

Arcoscalpellum triangulare (Hoek, 1883)

Figure 8c–e

Newman and Ross, 1971: 84.

Examined Material.—BRAZIL. Rio Grande do Sul: Off Albardão, 460 m, on Polychaeta tubes of *Spiochaetopterus* sp., MZUSP 8149.

Description and Diagnosis.—Hoek, 1883: 84.

Geographic Distribution.—Western Atlantic, Brazil—Rio Grande do Sul—and Argentina—Off Rio de la Plata. Antarctic. Elephant Island and Young Island (Hoek, 1883; Zevina, 1964).

Habitat.—Fixed on Polychaeta tubes between 460 and 1,097 m.

Remarks.—The single specimen examined (Fig. 8c–e) was small (5.2 mm of capitulum height and 1.8 mm of peduncle) and presented an anomalous growth on its left side. At this side the carinal-latus was reduced and the inframedian-latus and rostral-latus were partially welded. This specimen was distinct from the described by Hoek (1883), because the former presented: rostrum narrow; cuticle thin without setulated projection covering the capitulum; carina with middle basal region slightly flattened; carinal-latus umbo situated on a lower position on the carinal margin; inferior angle of upper-latus obtuse; and plates without grooves.

Despite these differences, I think this specimen belongs to Hoek's species. The upper-latus and carinal-latus of typical shape, besides the shape of the upper portion of the carina supports this belief. Some of the differences observed may be due to the small size of the examined specimen. At this time, this is the only subantarctic species recorded on the Brazilian coast.

ACKNOWLEDGMENTS

I thank L. Forneris (Universidade de São Paulo) and C. B. Castro (Museu Nacional of Universidade Federal do Rio de Janeiro) for several useful comments on this paper. I also acknowledge the fellowships and the financial support from FAPESP, CAPES and CNPQ.

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DATE ACCEPTED March 25, 1991.

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